

# ***Public Experience, Attitudes, & Knowledge Toward Forest Fire, Risk, & Recovery***

**J.M. Bowker, H.K. Cordell,  
S. Rideout-Hanzak, C.Y. Johnson**  
**USDA Forest Service**

**S-H. Lim, G.T. Green**  
**University of Georgia**

**JFSP PI Workshop Phoenix, AZ 4/8/04**

# ***Objectives***

## ■ **Explore Public's**

- **Experience with forest fire**
- **Knowledge of fire & fire ecology**
- **Attitudes -Fire Management**
- **Attitudes - Fire risk**
- **Fire prevention behavior**



# ***Objectives***

## **■ Assess Explanatory Factors**

- Gender, Race, Age**
- Income, Education, Employment**
- Region, Immigration**
- Where-raised, Where-living**

# ***Methods***


## **Data**

- **National telephone survey (NSRE)**
- **Approx 40 questions**
- **Two treatments @ 3000**
  -  **Fall 2002 – Spring 2003**
  -  **Fall 2003 – Spring 2004**

**[www.srs.fs.usda.gov/trends/Nsre/nsre2.html](http://www.srs.fs.usda.gov/trends/Nsre/nsre2.html)**

# ***Methods***

## **Analysis**

- **Frequencies (post sample wts)**
- **Logistic regression**
  -  **Binary, Multinomial, Ordered**
- **Poisson knowledge score model**
- **Excel probability spreadsheets**

## ***Results (n=3000+)***

### **■ Experience**

### **Yes(%)**

- |                            |    |
|----------------------------|----|
| - Seen, heard, read 3 mo   | 86 |
| - Diff wild vs prescribed  | 83 |
| - Ever witness forest fire | 40 |
| - Seen forest post burn    | 67 |
| - Smoke affected travel    | 39 |
| - Fire altered rec plans   | 19 |

# ***Results***

## **Risk**

## **Very Likely (%)**

**- Fire w/i 10 mi home      26**

## **Concerned (%)**


**- Home damaged fire      10**

**- Smoke prescribed fire      34**

**- Wildlife prescribed fire      48**

**- Scenery prescribed fire      40**

# ***Results***

 <u><b>Risk Avoidance</b></u>	<u><b>Yes(%)</b></u>
- <b>Clear vegetation from buildings</b>	<b>35</b>
- <b>Spray herbicide control undergrowth</b>	<b>12</b>
- <b>Extra property insurance</b>	<b>36</b>
- <b>Keep firefighting equip</b>	<b>30</b>
- <b>Routinely burn undergrowth around home</b>	<b>7</b>



# ***Results***

## **Knowledge**


## **True(%)**

- **Most wildfires natural** **40**
- **Wildfire destructive** **52**  
**long-term forest health**
- **Wildfire a leading** **47**  
**environmental problem**

# ***Results***

 <u><b>Knowledge</b></u>	<u><b>True (%)</b></u>
- <b>Prescribed &amp; wildfire similar effects</b>	<b>43</b>
- <b>Prescribed fire kills too many large trees</b>	<b>26</b>
- <b>Prescribed regularly out of control</b>	<b>21</b>
- <b>Prescribed fire reduces wildfire risk</b>	<b>79</b>

# ***Results***

 <u><b>Knowledge</b></u>	<u><b>True (%)</b></u>
- Fire increases chances insect or disease o-b's	23
- Fire useful to control undesirable weeds	64
- Many plants require fire in life cycle	57


# ***Results***

## **Attitudes**


## **Agree (%)**

- **Natural recovery** **56**
- **Put out all wildfires** **51**
- **Allow remote burns** **38**  
**if humans unthreatened**
- **Post fire timber salvage** **71**  
**makes sense**


# ***Results***

 <u><b>Attitudes</b></u>	<u><b>Agree (%)</b></u>
- <b>People choosing to live near forests accept risks</b>	<b>91</b>
- <b>Homeowners should follow gov't guidelines to manage for wildfire risk</b>	<b>80</b>

# *Results*

 <u>Attitudes</u>	<u>Agree (%)</u>
- <b>Public land managers ...</b>	
- Trusted to select best methods for wildfire	66
- Use mechanical ground veg removal	58
- Use chemical treatments	26
- Use prescribed fire	74

# ***Results***

 <u><b>Attitudes</b></u>	<u><b>Concerned (%)</b></u>
- <b>Public land managers' ability to manage fire in forests &amp; rangeland</b>	<b>36</b>
- <b>Gov't not consider taxpayer costs...</b>	<b>51</b>
- <b>Gov't not consider long-term ecosystem health ...</b>	<b>66</b>

# ***Results***

## **Factors**

- **Race**
- **Gender**
- **Region**
- **Age**
- **Income**
- **Education**

## **Significant**

**Most**

**Most**

**Most**

**Often**

**Often**

**Often**



# ***Some Implications***

## ■ **Experience**

- **15% - Simply not tuned in**

## ■ **Attitudes**

- **Buyer beware**
- **Timber salvage**
- **Anti-chemical**
- **Prescribed fire wins**
- **Ecosystem health**
- **Pro's generally trusted ...**